

From: Overbay, Michael
To: "STEVEN (b) (6)"
Subject: RE: Barnett Shale: After dangerously high methane level detected, no reaction by EPA, Texas agency --
Date: Wednesday, November 6, 2013 -- www.eenews.net
Wednesday, November 06, 2013 1:08:00 PM

Thanks for the two stories Steve. I am sending them up my chain of command.

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From: STEVEN LIPSKY [mailto:(b) (6)]
Sent: Wednesday, November 06, 2013 1:06 PM
To: Overbay, Michael
Subject: Fwd: Barnett Shale: After dangerously high methane level detected, no reaction by EPA, Texas agency -- Wednesday, November 6, 2013 -- www.eenews.net

Sent from my iPhone

Begin forwarded message:

From: Mike Soraghan <msoraghan@eenews.net>
Date: November 6, 2013 at 12:33:54 PM CST
To: "Steve Lipsky (b) (6)"
Subject: Barnett Shale: After dangerously high methane level detected, no reaction by EPA, Texas agency -- Wednesday, November 6, 2013 --
www.eenews.net

FYI -

<http://www.eenews.net/energywire/2013/11/06/stories/1059990027>

BARNETT SHALE: After dangerously high methane level detected, no reaction by EPA, Texas agency

Mike Soraghan, E&E reporter

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On a late November day last year, two men pulled up in front of Shelly Perdue's home near Weatherford, Texas, in rented pickups. They were there to sample the water next to her home.

The results, requested by U.S. EPA, showed the water had dangerously high levels of methane, the primary component of natural gas.

But after that, nothing much happened.

The results went to EPA, which sent them to a state agency four months later. State officials contacted the company once accused of contaminating the water. That company, Range Resources Corp., assured them Perdue was safe because the methane was vented off her well.

No one called Perdue. All she remembers is a letter from Range Resources.

"It just said there was nothing to worry about, the water was fine," Perdue said in a phone interview.

Perdue does worry, because she doesn't think the water is fine. Other tests have indicated that there's methane in the air in her home as well, at dangerous levels. She worries that a spark from a heater or even air conditioner could light the place on fire.

But there's not much she can do. It's her home, and she needs water.

"I'm kind of stuck," said Perdue, whose home is west of Fort Worth in Parker County.

Bryce Payne, a soil scientist hired by Perdue's neighbor as part of the area's long-running water contamination case, says the contamination in the area is much bigger than Perdue's one high reading. He says EPA has accepted "bogus" test results from Range and its contractors for Perdue's water well and 17 more belonging to her neighbors.

The results submitted to EPA by Range, he said, include contradictory data. One set shows acceptably low levels of methane in most of the water wells, while the other shows that those low levels can't be correct.

"These numbers don't fly," Payne said. "There are conflicts in these numbers that need to be resolved."

EPA officials would not respond to Payne's accusations, but they have asked Range for more supporting data.

The state agency was the oddly named Texas Railroad Commission, which regulates oil and gas. Commission spokeswoman Gaye McElwain said officials there didn't contact Perdue because she hadn't filed a complaint at the time.

She added that the next test of Perdue's water, three months later, showed the methane levels had dropped by more than half. In some states, the lower concentration still would have been considered dangerous, but not in Texas.

A Range spokesman didn't respond to requests for comment.

Methane's mark on drilling

The regulators' inaction is the latest wrinkle in one of the biggest battles of the national shale drilling debate.

EPA requested the water testing in 2012, at the same time it bailed out on a high-stakes enforcement action against Range. Since December 2010, EPA had been pursuing a case against the Fort Worth-based company for contaminating the drinking water of two of Perdue's neighbors with methane when it drilled two Barnett Shale wells nearby.

Methane migration is an established, if not common, problem when drilling oil and gas wells. Failure to properly seal wells with cement can allow gas from different formations to drift into drinking water aquifers.

Methane naturally occurs in drinking water wells in some areas of the country and is not toxic in drinking water. But if it collects, it can explode in a house or asphyxiate someone at high concentrations. When it migrates from deep underground, it can be accompanied by other harmful substances.

EPA dropped the Range case in the spring of 2012 in the face of staunch resistance by the company. EPA's statement at the time said officials wanted to

shift away from litigation "toward a joint effort on the science and safety of energy extraction" ([E&ENews PM](#), March 30, 2012).

The statement also noted that Range had agreed to participate in EPA's study of the safety of hydraulic fracturing.

Range agreed to conduct four sets of tests, spaced evenly over the course of a year, on local water wells, looking for methane, benzene and other substances. The testing was completed earlier this year. *EnergyWire* obtained the Range-commissioned sampling data from EPA through a Freedom of Information Act request.

But the agreement didn't say what would be done with the results.

EPA says it didn't have jurisdiction over the tested wells, so it sent the readings to state oil and gas officials at the Railroad Commission.

"We defer to them as the lead state agency charged with overseeing oil and gas-related activities in Texas to determine the appropriate course of action at this time," EPA said in a statement to *EnergyWire*.

The commission had already deemed Range blameless in a 2011 ruling and adopted the company's argument that whatever methane is in the water is naturally occurring.

'You're not getting the correct readings'

The first two quarterly tests at Perdue's well did not show troubling concentrations of methane.

Then, in November 2012, the concentration of methane jumped fivefold to 20.1 milligrams per liter (mg/l). Texas acknowledges a problem at 10 mg/l.

Perdue thinks she knows the reason for the sharp increase -- she finally demanded that the sampling crew take samples correctly.

The people who came to sample, she said, had been drawing water from a point in her line after a treatment tank, so the methane was allowed to escape.

When they came out in November 2012, she said she wanted them to sample the water where it came out of the ground and extract it in such a way that the methane was not allowed to escape. Grudgingly, she said, they agreed.

"I told the guys I would not allow them on my property," Perdue said. "I told them, 'You're not getting correct readings.'"

Range sent the results to EPA, which sent them to the state, where officials contacted Range.

"At that time Ms. Perdue had not filed a complaint with the RRC so our staff contacted Range Resources to determine how Ms. Perdue's water well was plumbed," McElwain said. She has since filed a complaint ([EnergyWire](#), Sept. 18).

Range assured RRC officials the well was vented, so the methane couldn't get into the house.

McElwain noted that by the time state officials received the test results -- four months later -- a second test had shown that the methane level was back down to 8.8 mg/l. Range and the Railroad Commission say her well, built before she moved there, was drilled into an aquifer that also has natural gas.

Texas considers methane levels of below 10 mg/l to require no action beyond monitoring. In other states, the threshold is lower. For example, in Pennsylvania, the action level is 7 mg/l.

In all of the tests Range commissioned in the neighborhood, Perdue's 20.1 mg/l concentration is the only sample that came back higher than 10 mg/l.

But Payne, who has stopped working for Perdue's neighbor, Steve Lipsky, and

continues to help Perdue pro bono, says those results don't square with other data Range submitted to EPA. While the concentrations are acceptably low, the composition of the gas extracted from the wells of Perdue and her neighbors was as high as 65 percent methane.

"One of these numbers is wrong," Payne said.

After Payne contacted EPA with his concerns, EPA officials in Dallas wrote to Range asking for more supporting data for the testing results they'd sent, according to a [document](#) obtained by *EnergyWire*.

But Perdue says the point of the testing requested by EPA still isn't clear to her.

"Nobody's ever offered an explanation why they send them out here to test," Perdue said, "and then never do anything about it."